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(54) **LIGHTING ENTERTAINMENT SYSTEM**

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- (60) Provisional application No. 60/071,281, filed on Dec. 17, 1998, provisional application No. 60/078,861, filed on Mar. 20, 1998, provisional application No. 60/079,285, filed on Mar. 25, 1998, provisional application No. 60/090,920, filed on Jun. 26, 1998, and provisional application No. 60/068,792, filed on Dec. 24, 1997.

(51) Int. Cl.<sup>7</sup> ..... **H05B 37/02**  
(52) U.S. Cl. .... **315/362; 315/292; 315/316; 315/324**

(58) **Field of Search** ..... 315/316, 317, 315/292, 295, 291, 362, 228, 324; 348/460, 462, 464, 465, 476, 480, 484, 489

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(57) **ABSTRACT**

Provided herein are methods and systems for signal processing for illumination control signals, which may include a decoder for decoding a combined signal and a connection for delivering a portion of the combined signal to an illumination source, which source is capable of generating an illumination condition from the portion of the combined signal. The system may also include an encoder for encoding the combined signal from an illumination control signal and a second signal. The illumination source may be an LED system that is controlled by a microprocessor to vary at least one of the color and intensity of the illumination produced by the illumination source in response to the illumination control signal.

**109 Claims, 75 Drawing Sheets**

